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March 7, 2005

TO: Each Supervisor

FROM: Thomas L. Garthwaite, MD  
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*Jonathan E. Fielding, MD, MPH*  
Jonathan E. Fielding, MD, MPH  
Director of Public Health and Health Officer

SUBJECT: 2005 WEST NILE VIRUS ACTION PLAN

On February 15, 2005, the Board approved a motion directing us to provide a verbal and written report on March 8, 2005 about the status of preparation for the arrival of West Nile Virus in Los Angeles County for this year. This is the report.

Attached are the following documents:

- Attachment I: WNV Prevention and Surveillance Plan for 2005
- Attachment II: Summary Action Plan – 2005
- Attachment III: Summary of Survey Results
- Attachment IV: WNV Epidemiology Report for 2004

The plan is dependent upon the close collaboration among the Mosquito and Vector Control Districts, the State Departments of Health Services and Food and Agriculture, and the Cities of Long Beach and Pasadena.

Please let either of us know if you have any questions or need additional information. We will be providing you with regular updates as the season progresses.

TLG:JEF:LM  
A:1502:001

Attachments

c: Chief Administrative Officer  
County Counsel  
Executive Officer, Board of Supervisors

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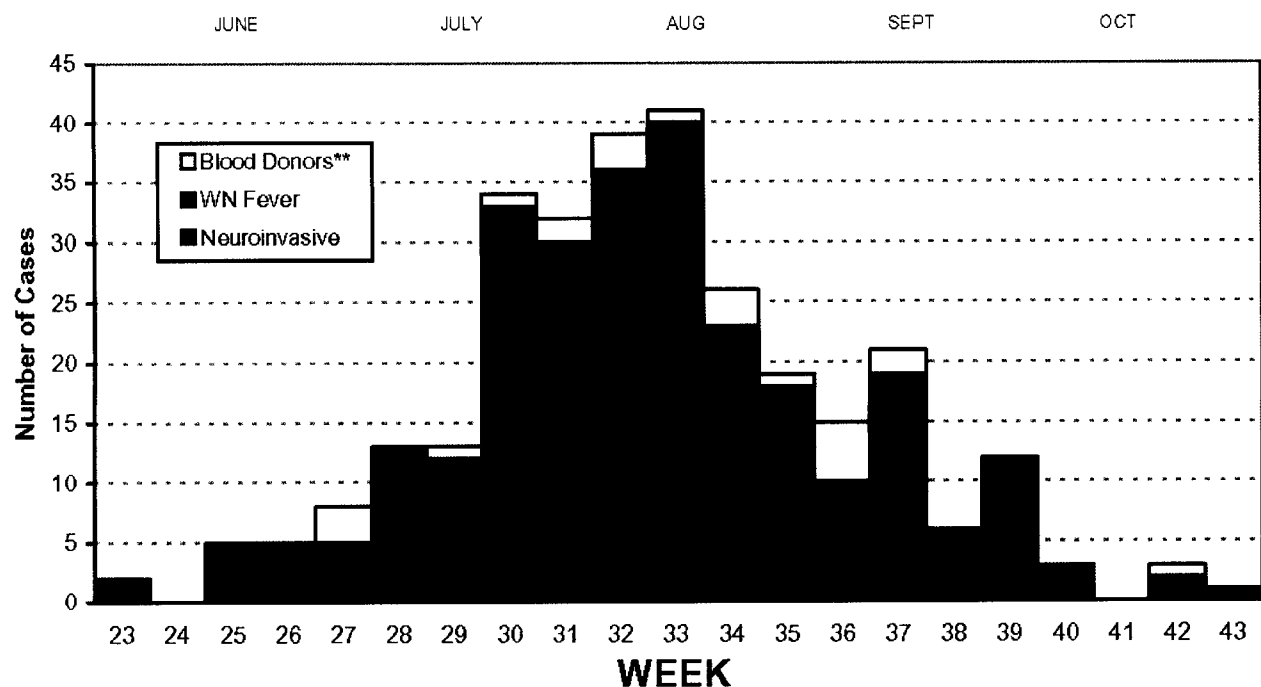


## WEST NILE VIRUS: Epidemiology Report - 2004 (As of January 4, 2005)

West Nile Virus Case Characteristics Los Angeles County, 2004 <sup>1</sup>										
	Total #	Information Unknown <sup>2</sup>	Clinical Presentation						Demographics	
			Blood Donor	WN Fever	Neuro-invasive	Neuroinvasive Diagnosis	Hospitalized <sup>3</sup>	Deaths	Gender ratio (M / F)	Median Age (range)
<b>TOTAL to date<sup>4</sup></b>	306	0	23	144	139	48 = Encephalitis 84 = Meningitis 7 = Acute Flaccid Paralysis	190	13	1.8 / 1	53 yrs (5-94 yrs)

1. Excludes cases in Long Beach and Pasadena. Totals are provisional and subject to change.  
 2. Cases reported positive by State DHS, but clinical and demographic information is excluded or pending.  
 3. Hospitalized at time of diagnosis and may not reflect current clinical status.  
 4. Cumulative case total as of 1/04/05.

### West Nile Disease Cases\* by Clinical Classification and Week of Symptom Onset Los Angeles County - 2004

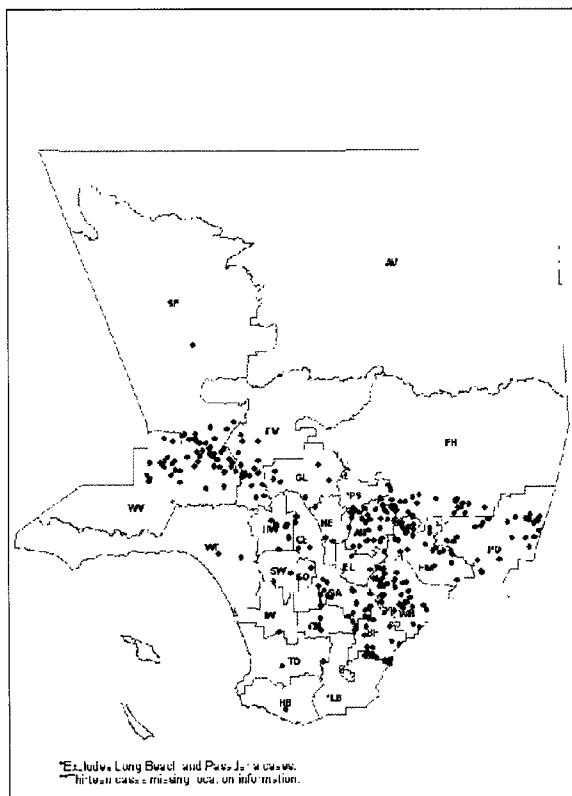


\* Preliminary data 1/04/05: n= 298; does not include 8 cases with unknown onset

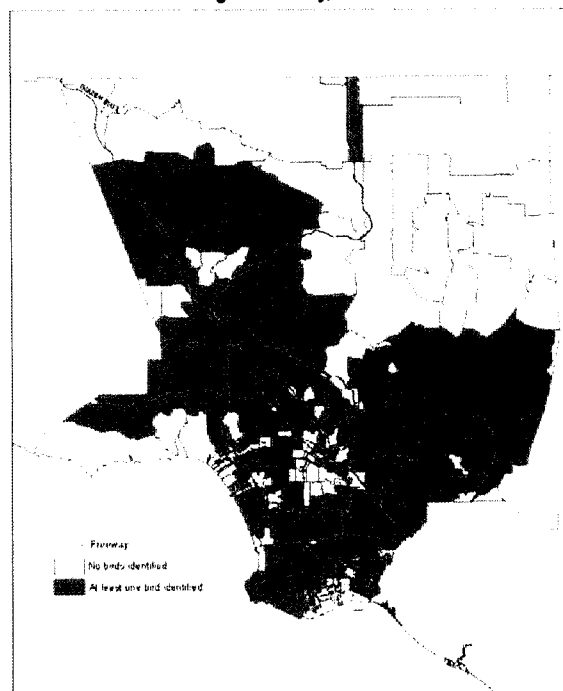
\*\* Blood donors listed by date of donation.

Human WNV Cases (n=293), 1/04/2005  
Department of Public Health, Los Angeles County

LOCATION	TOTAL to date
SPA 1: Antelope Valley	0
SPA 2: San Fernando	83
SPA 3: San Gabriel	112
SPA 4: Metro	14
SPA 5: West	2
SPA 6: South	7
SPA 7: East	77
SPA 8: South Bay	5
Residence Unknown <sup>5</sup>	6
<b>TOTAL</b>	306



**Dead Birds Identified with West Nile Virus by ZIP Code  
Los Angeles County, 1/04/2005**



**West Nile virus-infected dead birds:**

WNV-infected dead birds have been recovered from nearly all areas of Los Angeles County.

## **WEST NILE VIRUS PREVENTION AND SURVEILLANCE: PLAN FOR THE 2005 SEASON**

The 2005 West Nile virus (WNV) prevention campaign involves multiple public agencies working in close cooperation to reduce the conditions for WNV transmission to humans through education, surveillance, research, and control measures. These agencies are within and external to the Department of Health Services - Public Health. The Los Angeles County (LAC) WNV Task Force consists of three local health departments, five independent mosquito and vector control districts (MVC), and related State agencies working together to enhance and coordinate WNV surveillance, mosquito abatement, and public education.

### **BACKGROUND**

- WNV cases in humans and birds first occurred on the east coast in 1999; WNV transmission has been slowly moving westward.
- In 2003, the first dead birds and mosquito pools infected with WNV were identified in LAC.
- Only one locally-acquired confirmed case of human WNV fever was reported in 2003.
- Since June 2003, donated blood products nationwide have been screened for evidence of WNV infection.
- In February 2004, dead crows infected with WNV were identified and by early July, mosquito pools and dead crows infected with WNV were found across much of LAC.
- Beginning July 2004, human WNV infections were made legally reportable by both medical providers and laboratories.
- The first 2004 human WNV case had symptom onset in early June. Ultimately 306 cases were investigated and confirmed in 2004. (see attached annual summary).
- It is expected that WNV infections will become an endemic disease in LAC and throughout CA.

### **SURVEY REGARDING WEST NILE VIRUS**

A telephone survey in late September 2004 of county residents had the following key results:

- Television is the primary source of information about West Nile Virus.
- 97% of respondents understood that WNV can be acquired through mosquito bites and 77% identified older adults as most at risk.
- Up to 73% of residents took some action to reduce their chances of acquiring WNV.
- However, only 28% of respondents say they used insect repellent all or most of the time when outside.

### **DEPARTMENT OF HEALTH SERVICES**

Multiple agencies within DHS are involved in WNV activities.

# **WEST NILE VIRUS PREVENTION AND SURVEILLANCE: PLAN FOR THE 2005 SEASON**

## **ACUTE COMMUNICABLE DISEASE CONTROL**

Human WNV case surveillance and prevention are conducted by the DHS Acute Communicable Disease Control (ACDC) Program. ACDC consists of physicians, epidemiologists, nurses and health educators with extensive backgrounds in infectious disease epidemiology and prevention.

### **Human case surveillance**

- Letter to medical providers reminding them of WNV reporting requirements.
- 
- Letter to commercial laboratories reminding them of WNV reporting requirements of positive specimens.
- Provide diagnostic services and consultation to medical providers.

Conduct active surveillance on selected high risk areas. Weekly calls are made to participating hospital facilities.

### **Human case follow-up**

- ACDC professional staff review and investigate all suspect WNV case reports, clinical laboratory results, and blood bank positive donors. This activity is provided on a year round basis.
- When findings identify a confirmed WNV case, an epidemiologic case investigation is performed. This activity is provided on a year round basis.
- ACDC provides pertinent case location information to local MVCD for "hot spot" vector control. This activity is provided on a year round basis.
- ACDC reports confirmed case information to the State DHS. This activity is provided on a year round basis.

### **Ongoing status reports**

It is critical that all involved agencies be aware of the latest WNV information. ACDC will produce routine reports on the current status of cases and other WNV indicators in Los Angeles County to keep the public and medical community informed of surveillance and prevention activities related to West Nile virus and other arboviruses.

- Analysis of confirmed cases with summary reports on a periodic basis (monthly, biweekly, weekly as indicated, and consistent with the State DHS periodicity of release of information).
- Timely e-mails to involved agencies.
- Update LAC DHS web pages to reflect the most pertinent WNV epidemiologic surveillance data and prevention messages.

# WEST NILE VIRUS PREVENTION AND SURVEILLANCE: PLAN FOR THE 2005 SEASON

## Health education

In September 2004, a Knowledge, Attitude, and Perception (KAP) telephone survey was commissioned by DHS - see attached executive summary. Health education efforts for 2005 will build on previous years' work and be modified to highlight gaps identified by the survey. Promotion of personal behaviors the public can take to minimize the risk of being exposed to WNV is a critical part of the Public health message. A campaign of "WNV prevention begins in your own backyard" will be promoted.

- Informational cards (palm cards) to be updated based on LA Survey results; these will be distributed through public health centers, libraries, school districts, senior citizens' centers, home improvement centers, and similar venues.
- Distribution of **WNV, How to Mosquito Proof Your Home and Community** through Parks and Recreation.
- Maintain the toll free public information line in multiple languages.
- Update the WNV presentation for general audiences for the Speakers Bureau Training.
- Update the WNV web page. (as appropriate)
  - Downloadable materials such as: a one page low literacy flyer in English and Spanish; a 16-page Mosquito Control booklet in English and Spanish.
  - Links to various other resources, such as the MVCDs and the Centers for Disease Control and Prevention (CDC).

## PUBLIC HEALTH LABORATORY (LACPHL)

A variety of testing methodologies are provided by the LACPHL:

- Testing for human WNV infection and confirmatory testing of positive WNV human specimens submitted by clinical and reference laboratories.
- Referral of positive WNV specimens for confirmatory testing requiring special assays to the California DHS Viral and Rickettsial Disease Laboratory (VRDL).

WNV and other arboviral serologic tests are offered throughout the entire year, without charge for providers, upon submission of a completed case history form. The first 10 new reported WNV cases with positive screening tests are confirmed at the state VRDL.

## VETERINARY PUBLIC HEALTH

Veterinary Public Health participates in dead bird surveillance in conjunction with MVCDs and State agencies.

### WNV animal surveillance

- Dead bird reports are referred to the Los Angeles County Veterinary Public Health (LACVPH) hotline (877) 747-2243 or the State of CA DHS WNV dead bird hotline at (877)-WNV-BIRD. The number of dead birds reported by their species and the number of dead birds infected with WNV

## **WEST NILE VIRUS PREVENTION AND SURVEILLANCE: PLAN FOR THE 2005 SEASON**

and their location tally is maintained in a database by LACVPH. Data are maintained continuously throughout the year.

- Field testing is done by LACVPH (Vec test) if the bird has died recently (24-48 hours) and belongs to the corvid (crows, ravens, magpies, jays) or raptor (hawk, owl) families. Confirmatory testing on positive birds is performed in both the LACPHL and the California Department of Health Services, Viral and Rickettsial Disease Laboratory (VRDL). This activity is provided on a year round basis.
- WNV infection is known to causes illness in wide variety of animals, but has been rarely diagnosed in domestic pets such as dogs and cats. Veterinarians in LACVPH or ACDC are available to discuss unusual illnesses among dogs, cats or other domestic animals with private practitioners. This activity is provided on a year round basis.
- Dead squirrel testing is done on an ad hoc basis.

### **COMMUNITY HEALTH SERVICES**

#### **Speakers' Bureau**

- In 2004, Community Health Services staff, including public health nurses, and physicians, were trained in a comprehensive WNV presentation curriculum and over 172 presentatives were given to various agencies and organizations in LAC.
- Staff are available to make presentations to community agencies.

### **PUBLIC HEALTH COMMUNICATIONS**

In the KAP survey, most respondents gave mentioned standard media outlets as their main source of WNV health information – 65% Television, 15% newspaper, and 6% radio. The power of the media in promoting the PH prevention messages to the public can not be downplayed. All WNV press releases will highlight actions the public can personally due take to protect themselves form the disease. Reduction of mosquito breeding areas around the home by eliminating standing water, keeping mosquitoes outside of the home living environment with the use of screens, and reducing your risk for mosquito bites by using appropriate mosquito repellant and clothing will be stressed in all media releases will remain an important to educate the public.

- News releases – News releases will be generated throughout the WNV season. Key events to highlight would include: bird and mosquito surveillance data indicating WNV activity in new areas of the county and the identification of the season's first case. Additional news releases will be made periodically throughout the season to keep public interest high. Public Health Communications will respond promptly to media request for information.
- Press conferences – An April press conference kicking off the WNV season is planned to inform the public *action they can minimize their risk of infection.*
- Special promotional events – WNV health educational materials will be incorporated into routine health promotion activities. A media opportunity at senior center will stress their need for protection and risk for more severe illness outcome.

## **WEST NILE VIRUS PREVENTION AND SURVEILLANCE: PLAN FOR THE 2005 SEASON**

- The Public Health Communications office will work with MVCDs and State agencies to coordinate WNV media efforts.

### **ENVIRONMENTAL HEALTH**

Environmental Health staff will:

- Work with, county agencies and cities in developing long term permanent mosquito control services to uncovered areas through annexation or contractual agreements.
- Respond to mosquito concerns in those cities and communities without routine mosquito surveillance and control services. This activity is provided on a year round basis.
- Enhance WNV public education through routine literature distribution throughout all cities within the county and provide training to various Departments. This activity is provided on a year round basis.
- Develop a WNV video tape program for distribution through the LAUSD cable channel targeting school children. The expected completion date is March 25 and the expected implementation date is April 18, 2005.
- Provide staff members to present WNV information through the DHS Speakers Bureau. The expected completion date is March 25 and the expected implementation date is April 18, 2005.

### **MOSQUITO AND VECTOR CONTROL DISTRICTS**

The five mosquito and vector control districts (MVCDs) in Los Angeles County are largely responsible for non-human WNV surveillance. These agencies are independent special tax districts with separate funding sources and oversight. These agencies are independent of the Department of Health Services and the Board of Supervisors. The Long Beach Department of Health and Human Services also operates its Vector Control Program within that jurisdiction. Mosquito and vector control districts monitor sentinel chicken flocks, sample mosquitoes to identify potential vectors, and use mortality in wild birds to indicate areas of potential risk. These surveillance activities identify areas where mosquitoes may be breeding and district staff then focus their efforts on reducing the number of mosquito larvae. Controlling adult mosquitoes is not a primary focus of the MVCDs.

#### **Sentinel Chicken Surveillance**

Chickens can be asymptotically infected by mosquitoes carrying WNV and other arboviral diseases. Chickens are housed in various locals throughout LAC and periodically tested to determine presence of the virus in that locale.

- Chicken flocks are maintained by each of the 5 MVCDs in Los Angeles County at various locations (see attached table). These chickens are tested biweekly for arboviruses .
- Reports of positive findings are shared with other WNV agencies and published by the CA DHS, *CA Arbovirus Surveillance Bulletin*, available at <http://vector.ucdavis.edu/bulletins.html>. For questions about sentinel chicken surveillance within the state of California, contact (510) 540-2712 or email at [arbovirus@dhs.ca.gov](mailto:arbovirus@dhs.ca.gov).



# WEST NILE VIRUS PREVENTION AND SURVEILLANCE: PLAN FOR THE 2005 SEASON

## Surveillance -- Dead Bird Reporting and Testing

- Birds are collected and submitted to UC Davis Arbovirus Research Unit (DARU) for testing. Locations of dead birds are logged by the MVCDs and shared with ACDC. Locations for birds that test positive are evaluated for possible mosquito abatement.

## Mosquito Surveillance

All 5 local vector control districts in Los Angeles County conduct mosquito surveillance for speciation and virus testing for WNV and other arboviruses of human importance (see attached table). *Culex tarsalis*, *Culex pipiens*, *Culex quinquefasciatus* and *Culex stigmatosoma* are known to be suitable vectors of WNV in California.

- Approximately 100 mosquito pools (50 mosquitoes/pool) are tested per week for arboviruses, including SLE, WEE, and WNV.
- The CA DHS reports biweekly mosquito surveillance results in *CA Arbovirus Surveillance Bulletin*. <http://vector.ucdavis.edu/bulletins.html> For questions about mosquito surveillance throughout the state of California, contact (510) 540-2712.

## Standard abatement activities

Mosquito larva abatement via larvacide, mosquito fish, and habitat elimination. Controlling adult mosquitoes is not a primary focus of LAC MVCD.

## Educational outreach

- Each MVCD maintains a community outreach program, which promotes public awareness of district services, and educates and informs the community on vector prevention and control measures. Community outreach consists of: 1) Public information, 2) Classroom education, and 3) the Mobile Education Unit program known as VECMobile.
- Public information programs are coordinated by each agency's Public Information Officer (PIO), who provides strategic direction for a comprehensive public relations campaign, promoting awareness and support of District activities in the communities it serves.

## STATE AGENCIES

### Viral & Rickettsial Disease Laboratory, Department of Health Services

- The state viral laboratory -- VRDL -- obtains human clinical specimens from commercial labs within Los Angeles County for confirmatory testing. ACDC is in contact with the VRDL to obtain the latest results on LAC patients and to initiate investigation of confirmed cases. (continuous)

### Division of Communicable Disease Control (DCDC), Department of Health Services

## **WEST NILE VIRUS PREVENTION AND SURVEILLANCE: PLAN FOR THE 2005 SEASON**

- ACDC is in contact with its mirror unit at the state. Statewide consistency of activities is stressed. (continuous)

### **California Department of Food and Agriculture (CDFA)**

- WNV may cause fatal encephalitis in horses. A WNV vaccine is available for horses. This vaccine was fully licensed in February 2003. Horse owners should discuss WNV vaccination with their veterinarian.
- CDFA is available to talk with horse owners or private practitioners about equine WNV surveillance and prevention.
- Free testing for clinically suspected cases of equine arboviral encephalitis is available through a joint effort by California Animal Health and Food Safety (CAHFS) Laboratory, CDFA, UC Davis Arbovirus Research Unit, and DHS.
- For more information on veterinary surveillance contact LACVPH at 323-730-3723 or CA DHS, Veterinary Public Health Section at 916-552-9740.

## **WEST NILE VIRUS PREVENTION AND SURVEILLANCE: PLAN FOR THE 2005 SEASON**

### **Mosquito & Vector Control Districts and Related Agencies**

Greater Los Angeles County Vector Control District  
562-944-9656  
<http://glacvcd.org/>

West Los Angeles Vector Control District  
310-915-7370  
<http://www.lawestvector.org/>

San Gabriel Valley Mosquito and Vector Control District  
626-814-9466  
<http://www.sgvmosquito.org/>

Antelope Valley Mosquito and Vector Control District  
661-942-2917  
<http://www.avmosquito.org/>

Compton Creek Mosquito Abatement District  
310-639-7375

Pasadena City Department of Public Health  
626-744-6012

Long Beach Department of Health and Human Services, Vector Control Program  
[http://www.ci.long-beach.ca.us/health/vector home.html](http://www.ci.long-beach.ca.us/health/vector%20home.html)  
562-5704129

Acute Communicable Disease Control Program, LAC DHS Public Health  
213-240-7941  
<http://www.lapublichealth.org/acd/index.htm/>

Vector Management, Environmental Health, LAC DHS Public Health  
626-430-5200  
<http://www.lapublichealth.org/eh/index.htm/>

Mosquito and Vector Control Association of California  
<http://mvcac.org/>  
916-440-0826

Centers for Disease Control and Prevention  
<http://www.cdc.gov/ncidod/dvbid/westnile/index.htm>

California Department of Health Services  
<http://www.westnile.ca.gov/>

# WEST NILE VIRUS SURVEILLANCE AND PREVENTION SUMMARY ACTION PLAN – 2005

Agency	WNV Activity	Description	Completion Date	Implementation Date	Notes
DHS ACDC	Human surveillance	Clinician letter -- mandatory WNV reporting and prevention message	March 25, 2005	April 4, 2005	On July 1, 2004, the Health Officer made WNV infection reportable by clinicians and laboratories within one working day.
DHS ACDC	Human surveillance	Laboratory letter -- mandatory WNV reporting of results	March 25, 2005	April 4, 2005	
DHS ACDC	Human surveillance	Clinical consultation on WNV to medical providers	Continuous, year-round	Continuous	Schedule medical grand rounds for physicians
DHS ACDC	Human surveillance	Active surveillance at selected high risk areas within LAC	March 31, 2005	April, 2005	Hospitals in eastern county were invited to join active surveillance project. Hospital will report all WNV tests performed in house or will receive free WNV testing by PHL.
DHS ACDC	Human surveillance	Update database and epidemiologic case history forms	March 18, 2005	Date of first case	Ongoing data cleaning
DHS ACDC	Human surveillance	Conduct epidem. investigation	Continuous, year-round	Date of first case	ACDC professional staff review and investigate all suspected WNV case reports, clinical laboratory reports, and blood bank positive donors.
DHS ACDC	Human surveillance	Communication to local mosquito & vector control (MVCD) districts and CADHS	Continuous, year-round	Date of first case	ACDC communicates pertinent location to local MVCD so it can assess and apply control measures if warranted.
DHS ACDC	Human surveillance	Communication to State DHS	Continuous year-round	Continuous	To synchronize statistics with state

**WEST NILE VIRUS SURVEILLANCE AND PREVENTION  
SUMMARY ACTION PLAN – 2005**

<b>Agency</b>	<b>WNV Activity</b>	<b>Description</b>	<b>Completion Date</b>	<b>Implementation Date</b>	<b>Notes</b>
DHS ACDC	Human surveillance	Summary reports of human cases	Continuous year-round	Date of first case	Analysis of confirmed cases on weekly or monthly basis. Update LAC DHS web page with accurate epidemiologic information.
DHS ACDC	Human surveillance	Analysis of human WNV surveillance data	Continuous year-round	Continuous	Generate weekly surveillance report - send by e-mail to appropriate agencies - post on website for public
DHS ACDC	Health education	Coordinate prevention messages, press conferences and press releases with MVCDs and State	Ongoing	Ongoing	Collaborate to extent possible on standard public health messages and special releases, informed by survey.
DHS ACDC	Health education	Update WNV information cards (palm cards) to reflect findings of LA Survey.	January 5, 2005- March 16, 2005	April 4, 2005	This is the main health educational handout. Will distribute to libraries, public health centers, hospitals, home improvement areas, health fairs, senior citizen centers, et al
DHS ACDC	Health Education	How to Mosquito Proof Your Home & Community	Complete	March 16, 2005	Parks & Recreations will partner with distribution of health education materials
DHS ACDC	Health Education	Toll free public information line in multiple languages	March 2-March 15, 2005	March 15, 2005	Review and update messages monthly or as needed.

**WEST NILE VIRUS SURVEILLANCE AND PREVENTION  
SUMMARY ACTION PLAN – 2005**

<b>Agency</b>	<b>WNV Activity</b>	<b>Description</b>	<b>Completion Date</b>	<b>Implementation Date</b>	<b>Notes</b>
DHS ACDC	Health Education	Web page provides up-to-date figures on WNV activity in LAC. Links to appropriate sites for more information; access to downloadable materials	Ongoing	Ongoing	
DHS ACDC	WNV comprehensive status report	Provide information on cumulative human, bird, and mosquito indicators.	April 18, 2005	Following April 18, 2005	Information to be e-mailed to appropriate agencies, posted on WNV web site
DHS CHS (AHOs)	Speakers Bureau	Update 2004 slide set with new information from LA Survey.	March 21, 2005	March 21, 2005	172 presentations were provided by the speaker's bureau in 2004.
LAC VPH	Dead Bird Surveillance	Log calls from the public and MVCDs on dead birds. Arrange pick-up.	Continuous	Continuous	Arrange for test if bird has died recently (24-48 h) and belongs to corvid or raptor families.
LAC VPH	Dead Bird Surveillance	Perform VecTest (quick screening test) on dead birds	Continuous	Continuous	Confirmatory testing on positive birds is performed by LACPHL and California Viral and Rickettsial Disease Laboratory (VRDL)
LAC EH	Collaboration	Work with board officials, county agencies and cities in developing long term, permanent mosquito control services to uncovered areas through annexation or contractual agreements	Continuous	Continuous	Baldwin Park South Pasadena La Canada-Flintridge Santa Clarita Lancaster/Palmdale Hwy 14 corridor

**WEST NILE VIRUS SURVEILLANCE AND PREVENTION  
SUMMARY ACTION PLAN – 2005**

<b>Agency</b>	<b>WNV Activity</b>	<b>Description</b>	<b>Completion Date</b>	<b>Implementation Date</b>	<b>Notes</b>
LAC EH	Collaboration	Respond to mosquito concerns in those cities and communities without routine mosquito surveillance and control services	Continuous	Continuous	Does not include abatement.
LAC EH	Outreach	Develop a WNV program for LAUSD cable channel.	Ongoing	May 16, 2005	
LAC EH	Public education and inter-departmental training	Routine literature distribution throughout all cities within the county and provide training to other departments	Continuous	Continuous	Materials from ACDC
LAC EH	Collaboration	Provide staff to DHS Speakers Bureau	Continuous	Continuous	
LAC EH	Coordination	Facilitate MVCD communications on mosquito and bird findings	Continuous	Continuous	Represent DHS in technical meetings on vector surveillance and control
Local MVCDs	Sentinel chickens Surveillance	Maintain sentinel chicken flocks at various geographic locations	Continuous	Continuous	Chickens are bled biweekly and tested at VRDL
Local MVCDs	Mosquito Surveillance	Test mosquito pools for arboviruses including SLE, WEE, and WNV	Continuous	Continuous	The CA DHS reports biweekly mosquito surveillance results in <i>CA Arbovirus Surveillance Bulletin</i>

**WEST NILE VIRUS SURVEILLANCE AND PREVENTION  
SUMMARY ACTION PLAN – 2005**

<b>Agency</b>	<b>WNV Activity</b>	<b>Description</b>	<b>Completion Date</b>	<b>Implementation Date</b>	<b>Notes</b>
Local MVCDs	Mosquito Abatement	MVCDs receive reports from ACDC and VPH to identify areas of human and animal case activity	As needed	As needed	Mosquito larva abatement via larvacide, mosquito fish, and habitat elimination. Controlling adult mosquitoes is not a primary focus of any MVCD
Local MVCDs	Dead Bird Surveillance	Sites for positive birds are evaluated for possible mosquito abatement	Continuous	Continuous	
Local MVCDs	Public education	Districts' mission includes promotion of personal responsibility to reduce mosquito breeding sites.	Continuous	Continuous	Each MVCD serves a defined catchment area. Outreach thru mailings, billboards, and mass media



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**A SUMMARY OF THE FINDINGS  
FROM A SURVEY OF  
LOS ANGELES COUNTY ADULTS  
ABOUT THE WEST NILE VIRUS**



*- conducted for the -*

*Los Angeles County Department of Health Services*

*September 28 – October 1, 2004*

## Summary of the Findings

- Virtually all Los Angeles County residents (93%) say they have heard of the West Nile Virus, while 7% have not. Asked when they first heard of the disease, 7% say they heard about it only in the past few weeks, 39% became aware of it during the summer and 47% reported hearing about it prior to the summer. (*Graph 1 in chart pack*)
- Television is by far the public's main source of information about the disease. Two in three county residents (65%) say they have received most of their information about the West Nile Virus from television. The next most frequently cited information sources were newspapers/magazines (15%), radio (6%), family/friends/other persons (5%) and Internet Web pages (2%). (*Graph 2*)
- Nearly all residents understand that a person can get West Nile Virus through mosquito bites. Greater than nine in ten (97%) can identify this as a means of transmission of the disease. Greater than three in four residents (77%) also correctly understand that West Nile Virus is not spread through physical contact with another person, although 7% think that it is and 16% aren't sure. However, there is some public confusion as to whether people can get West Nile Virus from physical contact with a sick or dead bird. About as many residents (42%) incorrectly believe this is a way the disease can be transmitted to people as think it is not (38%), and 20% aren't sure. (*Graph 3*)
- Greater than three in four residents (77%) correctly identify older adults and senior citizens as the part of the population most at risk of getting sick and dying from the West Nile Virus. Another 23% identify infants and children as being most susceptible to getting the disease. (*Graph 4*)
- There are fairly high levels of public concern about the possibility that they or someone close to them might get sick from the disease, with six in ten reporting themselves as being very (31%) or somewhat (29%) concerned. This compares to 38% who are not too concerned or not at all concerned. There is proportionately greater concern about getting the disease among residents living in the County's South/Metro/East SPAs, Latinos (particularly non-English speakers) and residents with children in their households. (*Graph 5*)
- Concerns about getting the West Nile Virus are directly tied to the public's own assessment of the prevalence of mosquitoes in and around their home. About one in three (32%) say they have mosquitoes around their home all or some of the time. Among these residents concerns about getting the disease are much greater than among those who say they rarely or never have mosquitoes around their home. (*Graph 6*)

- The public reports taking a number of actions to reduce their chances of being bitten by mosquitoes since they became aware of the West Nile Virus. For example, 73% have checked window screens around their home to insure they are in good repair, 48% drained areas around their home of standing water, 38% say they wear protective clothing when outside for extended periods and 20% say they use mosquito repellent more often than they used to. In addition, half (50%) of county residents say they've changed their own personal behavior to reduce their chances of getting bitten by mosquitoes. (*Graph 7*)
- However, fewer than one in five residents (18%) say they use mosquito repellent all or most of the time when they are outside for extended periods or when mosquitoes might be present, while another 19% use in some of the time. This compares to 61% who rarely or never use it. Of those using mosquito repellent at least some of the time, 69% say the product they use contains DEET, 7% say it does not and 24% don't know. (*Graph 8*)
- County residents who use mosquito repellent infrequently give a wide range of reasons for this. Most frequently cited are they "forgot" or "don't usually think about it" (59%) or they are "not too concerned about mosquito bites" (55%). Other reasons mentioned by one in four or more include these -- "it's inconvenient" (31%), "don't like its smell or feel" (29%), and "concerned that it might be harmful" (25%). Two other reasons are cited less frequently -- "it doesn't seem to work very well for me" (15%) and it "costs too much" (11%). (*Graph 9*)
- Residents express a relatively high degree of confidence in the Los Angeles County Health Department to protect the public from the spread of West Nile Virus. County-wide, greater than three in four residents report being very (26%) or somewhat (50%) confident in the Health Department's ability to protect the public. This compares to just 16% who say they are not too or not at all confident. (*Graph 10*)
- Residents were then asked about a hypothetical situation in which county health officials announce that the West Nile Virus was severe enough to require community-wide pesticide spraying to reduce the number of mosquitoes in their neighborhood. In this setting, greater than eight in ten residents (86%) believe such spraying would be very or somewhat effective in preventing the spread of West Nile Virus, while 7% do not and 7% have no opinion. (*Graph 11*)
- Nevertheless, large proportions of residents say they would be concerned about the pesticide spraying itself. County-wide, 45% report being very concerned that such spraying could be harmful to their health or the health of someone close to them, and another 31% are somewhat concerned. This compares to 22% who are not too or not at all concerned. Most likely to express high levels of concern are women, those with children in their household, and Latinos or other residents of color. (*Graph 12*)

## **About the Survey**

The findings in this report are based on a county-wide telephone survey of 801 Los Angeles County adults. The survey was conducted in English and Spanish September 28 - October 1, 2004 by Field Research Corporation, an independent public opinion research organization, on behalf of the Los Angeles County Department of Health Services. All calls were made by professionally trained and supervised telephone interviewers working from Field's central location telephone interviewing facilities. Sampling was carried out using a random digit dial methodology, which gives all residents, including those whose phone number is listed and unlisted, an equal chance of being contacted. Up to four attempts were made to each randomly selected household to attempt to reach and interview county residents age 18 or older.

According to statistical theory, 95% of the time results from the overall countywide adult public sample would have a sampling error of +/- 3.5 percentage points. Percentages based on subgroups of the overall sample would have wider error ranges. There are many possible sources of error in any survey in addition to sampling variability. Different results could occur because of differences in question wording, sequencing or through errors or omissions in sampling, interviewing or data processing. Extensive efforts were made to minimize such errors.

The accompanying chart pack provides a visual portrayal of the survey results. Also attached is a hardcopy version of the survey questionnaire along with the marginal distributions of the findings to each question.